

MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION AND USE

Product Identifier	Calcium Carbonate (Limestone)	PIN	Not Available	WHMIS Classification	D2A
Product Use Numerous industrial manufacturing uses, and acid neutralization					
Manufacturer/Supplier's Name Chemical Lime Company of Canada Inc.			Poison Control Centre (for further treatment information) (604) 682-2344 Ext 2126 (B.C. Only) (604) 682-5050 (all other areas)		
Address 20302-102B Ave. Langley, BC V1M 3H1					
Plant Telephone Number (for further information on composition or in EMERGENCIES) (604) 888-4333			24 Hour Emergency Telephone Number Chemtrec (800) 424-9300		

HAZARDOUS INGREDIENTS

Hazardous Ingredients	Percentage %	PIN	CAS Number	LD50 (Species and Route)	LC50 (Species and Route)
Calcium carbonate	99	N.A.	1317-65-3	6540 mg/kg (rat, oral)	Not Available
Silica		N.A.	14808-60-7	Not Available	Not Available
Magnesium oxide		N.A.	1309-48-4	Not Available	Not Available
Magnesium		1869	7439-95-4	Not Available	Not Available
Iron		1383	7439-89-6	30 g/kg (rat, oral)	Not Available
Manganese		N.A.	7439-96-5	9 g/kg (rat, oral)	Not Available
Zinc		N.A.	7440-66-6	Not Available	Not Available

PHYSICAL INFORMATION

Physical State Solid	Odour and Appearance Odourless, white powder or granules			Odour Threshold Not applicable	
Vapour Pressure (mm Hg) Non-volatile	Vapour Density (air=1) Non-volatile	Evaporation Rate Non-volatile	Boiling Point (Celsius) 2850 °C	Melting/Freezing Point (Celsius) 825 - 1339 °C Decomposition	
pH 8-9 (aqueous solution)	Specific Gravity 2.7 to 2.9	Coefficient of Water/Oil Distribution Slightly soluble in water; soluble in chloride solutions acids (with evolution of CO₂)			

FIRE OR EXPLOSION INFORMATION

Flammable Material	If yes, under what conditions Calcium carbonate and its solutions will not burn or support combustion			
Means of Extinction	Use an extinguisher appropriate to the material which is burning.			
Flashpoint (Celsius) and Method Not applicable	Autoignition Temperature (Celsius) Not applicable	Lower Flammable Limit (% by volume) Not applicable	Upper Flammable Limit (% by volume) Not applicable	
Hazardous Combustion Products Carbon monoxide (CO) and carbon dioxide (CO₂)				
Explosion Data:	Sensitivity to Mechanical Impact No information available		Sensitivity to Static Discharge No information available	

REACTIVITY INFORMATION

Chemically Stable Material? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Conditions of Chemical Instability: Not applicable	
Incompatible With Other Substances? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If so, which Other Substances? FLUORINE - ignites and burns vigorously MAGNESIUM - may cause explosive reaction	
Reactive Material? Conditions Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> of Reactivity: Not applicable	
Hazardous Decomposition Materials Thermal decomposition will yield Calcium oxide	

HEALTH HAZARD INFORMATION

ROUTE OF ENTRY	TOXICOLOGICAL PROPERTIES	FIRST AID MEASURES
INHALATION	Irritation of nose, throat, and lungs Long term exposure to materials containing more than 1% free crystalline silica can result in the production of silicosis	Remove victim to fresh air Seek medical attention
SKIN ABSORPTION	Not applicable	Not applicable
INGESTION	Low toxicity. Ingestion of very large amounts may result in intestinal obstruction and constipation.	Do not induce vomiting. Should vomiting occur place victim in recovery position to prevent aspiration into lungs. Give 2 or 3 glasses of water or milk to drink. Seek medical attention.
EYE CONTACT	Irritation	Flush contaminated eye(s) with lukewarm running water for 10 minutes, holding eyelid open. If irritation persists, seek medical attention.
SKIN CONTACT	May cause irritation	Should irritation occur, flush area with lukewarm running water for 10 minutes. If irritation persists, seek medical attention.

EXPOSURE LIMITS

ACGIH TLV	Calcium Carbonate* TLV-TWA - 10 mg/m ³ Silica TLV - TWA = 0.1 mg/m ³ - 15 min limit	
Provincial Standard	Calcium Carbonate: 10 mg/m ³ -8 hr limit 20 mg/m ³ -15 min limit	Respirable Silica: <u>10 mg/m³</u> % respirable quartz + 2 Total Silica: <u>30 mg/m³</u> % quartz + 3
Corrosivity Corrosive to skin	Reproductive Toxicity No information available	Carcinogenicity No information available on calcium carbonate. Respirable crystalline silica from occupational sources is classified by IARC as a Group I carcinogen.
Irritancy Very irritating to skin & eyes	Teratogenicity No information available	
Sensitizing Properties No information available	Mutagenicity Insufficient data	Synergistic Products No information available

PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT

Respirator (Specify) NIOSH - approved dust mask	Gloves (Specify) Natural rubber, neoprene, nitrile, or PVC (polyvinyl chloride)	Eye (Specify) Safety glasses with side shields or CSA - approved goggles or faceshield
Clothing (Specify) Coveralls, or long sleeved shirt with long legged pants	Footwear (Specify) Substantial footwear with closed tops. Top of boot to be kept inside bottom of pant leg.	Other (Specify) No additional requirements

Engineering Controls Enclose processes to prevent dust release. Where process enclosure is not possible, provide ventilation (preferably local exhaust type) to remove dust. Vent the outside. System should be grounded. Provide an equal volume of tempered make-up air.
Handling Procedures and Equipment Eye wash stations and emergency showers readily available for use by workers handling product.
Storage Requirements Store in water tight containers in a cool, dry place, away from incompatible materials.
Special Shipping Information Same as for storage.
Spill and Leak Procedures Contain spill and secure area. Recover spilled product and contaminated material by manual or mechanical means. Neutralize traces with acetic or hydrochloric acid and flush with water. Review procedures with appropriate government agencies.
Waste Disposal It may be permissible to neutralize, dilute, and flush material to sewer or dispose to secure landfill.

PREPARATION INFORMATION

Prepared By (Group, Department, Etc.) Chemical Lime Company (Research and Development)	Telephone Number (817) 732-8164	Date January 8, 2003
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References:

Sax, N.I. & R.J. Lewis Sr. (1989) Dangerous Properties of Industrial Materials. New York: Van Nostrand Reinhold Co. Ltd.. ksa